

This listing of the claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Currently amended) A method of forming a microelectronic structure comprising:
 - forming a first thickness of an epitaxial germanium layer on a sacrificial silicon layer;
 - forming a targeted device layer thickness by removing a portion predetermined amount of the first thickness of the epitaxial germanium layer to form a targeted second thickness of the epitaxial germanium layer, wherein the portion comprises an amount to planarize the surface of the epitaxial germanium layer and an additional amount to achieve the targeted second thickness;
 - activating the epitaxial germanium layer and an oxide layer disposed on a silicon substrate in an oxygen plasma; and
 - bonding the activated epitaxial germanium layer to the oxide layer.
2. (Original) The method of claim 1 wherein bonding the epitaxial germanium layer to an oxide layer disposed on a silicon substrate comprises forming a germanium oxide interface between the epitaxial germanium layer and the oxide layer.
3. (Original) The method of claim 1 wherein forming the first thickness of the epitaxial germanium layer on the sacrificial silicon layer comprises forming a graded

buffer layer on a sacrificial silicon layer and then forming a first thickness of the germanium layer on the graded buffer layer.

4. (Currently amended) The method of claim 1 wherein removing the portion ~~predetermined amount~~ of the first thickness of the epitaxial germanium layer to form the targeted second thickness of the epitaxial germanium layer removing a predetermined amount of the first thickness of the epitaxial germanium layer to form a second thickness of the epitaxial germanium layer comprises polishing a ~~predetermined amount~~ the portion of the first thickness of the epitaxial germanium layer by chemical mechanical polishing to form a the targeted second thickness of the epitaxial germanium layer.

5. (Currently amended) The method of claim 4 wherein polishing a ~~predetermined amount~~ the portion of the first thickness of the epitaxial germanium layer by chemical mechanical polishing to form a the targeted second thickness of the epitaxial silicon germanium layer comprises polishing a ~~predetermined amount~~ the portion of the first thickness of the epitaxial germanium layer by chemical mechanical polishing to form a surface roughness in a the second thickness of the epitaxial germanium layer of about 5 angstroms or less.

6. (Previously presented) The method of claim 1 wherein bonding the epitaxial germanium layer to the oxide layer comprises bonding the epitaxial germanium layer to the oxide layer to form a composite substrate.

7. (Original) The method of claim 1 wherein activating the epitaxial germanium layer and an oxide layer disposed on a silicon substrate in an oxygen plasma comprises activating the epitaxial germanium layer and an oxide layer disposed on a silicon substrate, wherein the oxide layer is about 1,000 angstroms in thickness, in an oxygen plasma.

8. (Currently amended) The method of claim 1 wherein removing a ~~predetermined amount~~ the portion of the first thickness of the epitaxial germanium layer to form a the targeted second thickness of the epitaxial germanium layer comprises removing a ~~predetermined amount~~ the portion of the first thickness of the epitaxial germanium layer at a rate of less than about 10 angstroms per minute to form a the second thickness of the epitaxial germanium layer.

Claims 9-23 (canceled).

24. (New) The method of claim 1 wherein the first thickness of the epitaxial germanium layer comprises about 1600 angstroms to about 2400 angstroms.

25. (New) The method of claim 1 wherein the targeted second thickness of the epitaxial germanium layer comprises about 300 angstroms to about 2000 angstroms.